



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

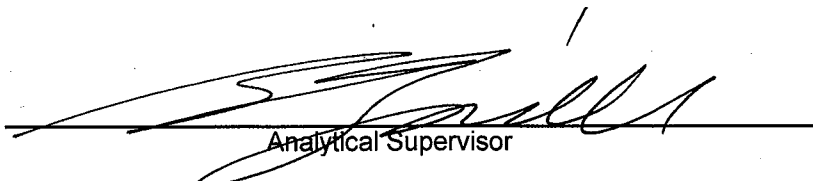
Sent To: Steve Roberts
TDEC-DWS
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003253
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Supply

Billing Code: 327.39-12

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003253001
Project Name:
Sample Description: Rockwood WTP
Sampler Project Name: Raw
Project Site No.:
Station No.:

Date/Time Collected: 01/04/2010 08:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 01/04/2010 14:38
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total			METHOD: EPA 310.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	93	mg/L	3.8	10	M Chen	1/8/2010

TEST: Hardness, Calcium			METHOD: SM 3500-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	62	mg/L	0.7	1	M Chen	1/6/2010

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003253002
Project Name:
Sample Description: Rockwood WTP
Sampler Project Name: Finish
Project Site No.:
Station No.:
Date/Time Collected: 01/04/2010 08:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 01/04/2010 14:38
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	91	mg/L	3.8	10	M Chen	1/8/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	62	mg/L	0.7	1	M Chen	1/6/2010

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003253003

Project Name:

Sample Description: Kingston WTP

Sampler Project Name: Raw

Project Site No.:

Station No.:

Date/Time Collected: 01/04/2010 09:25

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-DWS

Billing Code: 327.39-12

Send Report To: TDEC-DWS

Agency Invoiced: TDEC-DWS

Priority Date:

Date/Time Received: 01/04/2010 14:38

Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow:

CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	53	mg/L	3.8	10	M Chen	1/8/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	40	mg/L	0.7	1	M Chen	1/6/2010

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003253004

Project Name:

Sample Description: Kingston WTP

Sampler Project Name: Finish

Project Site No.:

Station No.:

Date/Time Collected: 01/04/2010 09:30

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-DWS

Billing Code: 327.39-12

Send Report To: TDEC-DWS

Agency Invoiced: TDEC-DWS

Priority Date:

Date/Time Received: 01/04/2010 14:38

Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	55	mg/L	3.8	10	M Chen	1/8/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	41	mg/L	0.7	1	M Chen	1/6/2010

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

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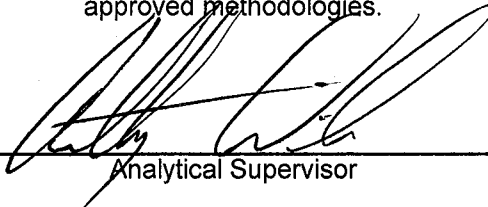
Sent To: Steve Roberts
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Knoxville, TN 37921

Lab ID: K00003253
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Supply

Billing Code: 327.39-12

This is to certify that the following results were determined using
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approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003253001
 Project Name:
 Sample Description: Rockwood WTP
 Sampler Project Name: Raw
 Project Site No.:
 Station No.:
 Date/Time Collected: 01/04/2010 08:40
 Sampler's Name: Geoff Klein
 County: ROANE - 73
 Sample Matrix: Water
 EFO: Knoxville
 Sampling Agency: TDEC-DWS
 Billing Code: 327.39-12
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Field Determinations

pH:
 Chlorine, residual:
 Conductivity:
 Temperature:
 Dissolved Oxygen:
 Other:
 Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/06/2010				A Wilson	1/6/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/7/2010
Barium	37	µg/L	2.5	5	M Pattanayek	1/7/2010
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/7/2010
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/7/2010
Chromium	U	µg/L	2.0	5	M Pattanayek	1/7/2010
Cobalt	U	µg/L	0.04	1	M Pattanayek	1/7/2010
Lead	U	µg/L	0.10	1	M Pattanayek	1/7/2010
Manganese	12	µg/L	0.42	1	M Pattanayek	1/7/2010
Selenium	U	µg/L	1.3	5	M Pattanayek	1/7/2010
Thallium	0.052J	µg/L	0.03	1	M Pattanayek	1/7/2010
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/7/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	1/8/2010

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003253002
Project Name:
Sample Description: Rockwood WTP
Sampler Project Name: Finish
Project Site No.:
Station No.:
Date/Time Collected: 01/04/2010 08:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 01/04/2010 14:38
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/06/2010				A Wilson	1/6/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/7/2010
Barium	32	µg/L	2.5	5	M Pattanayek	1/7/2010
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/7/2010
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/7/2010
Chromium	U	µg/L	2.0	5	M Pattanayek	1/7/2010
Cobalt	U	µg/L	0.04	1	M Pattanayek	1/7/2010
Lead	U	µg/L	0.10	1	M Pattanayek	1/7/2010
Manganese	0.50J	µg/L	0.42	1	M Pattanayek	1/7/2010
Selenium	U	µg/L	1.3	5	M Pattanayek	1/7/2010
Thallium	U	µg/L	0.03	1	M Pattanayek	1/7/2010
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/7/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	1/8/2010

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003253003
Project Name:
Sample Description: Kingston WTP
Sampler Project Name: Raw
Project Site No.:
Station No.:
Date/Time Collected: 01/04/2010 09:25
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 01/04/2010 14:38
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/06/2010				A Wilson	1/6/2010

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/7/2010
Barium	25	µg/L	2.5	5	M Pattanayek	1/7/2010
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/7/2010
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/7/2010
Chromium	U	µg/L	2.0	5	M Pattanayek	1/7/2010
Cobalt	U	µg/L	0.04	1	M Pattanayek	1/7/2010
Lead	0.16J	µg/L	0.10	1	M Pattanayek	1/7/2010
Manganese	34	µg/L	0.42	1	M Pattanayek	1/7/2010
Selenium	U	µg/L	1.3	5	M Pattanayek	1/7/2010
Thallium	U	µg/L	0.03	1	M Pattanayek	1/7/2010
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/7/2010

TEST: Mercury			METHOD: EPA 245.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	1/8/2010

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003253004

Project Name:

Sample Description: Kingston WTP

Sampler Project Name: Finish

Project Site No.:

Station No.:

Date/Time Collected: 01/04/2010 09:30

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-DWS

Billing Code: 327.39-12

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Priority Date:

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Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/06/2010				A Wilson	1/6/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/7/2010
Barium	24	µg/L	2.5	5	M Pattanayek	1/7/2010
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/7/2010
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/7/2010
Chromium	U	µg/L	2.0	5	M Pattanayek	1/7/2010
Cobalt	U	µg/L	0.04	1	M Pattanayek	1/7/2010
Lead	U	µg/L	0.10	1	M Pattanayek	1/7/2010
Manganese	U	µg/L	0.42	1	M Pattanayek	1/7/2010
Selenium	U	µg/L	1.3	5	M Pattanayek	1/7/2010
Thallium	U	µg/L	0.03	1	M Pattanayek	1/7/2010
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/7/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	1/8/2010

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected